

ABSTRACT OF THE DISCLOSURE

5 A process for making functional or decorative flakes or
platelets economically and at high production rates comprises
applying a multi-layer sandwich of vapor deposited metal and
release coats in alternating layers to a rotating chilled drum
or suitable carrier medium contained in a vapor deposition
10 chamber. The alternating metallized layers are applied by
vapor deposition and the intervening release layers are
preferably solvent soluble thermoplastic polymeric materials
applied by vapor deposition sources contained in the vapor
deposition chamber. The multi-layer sandwich built up in the
15 vacuum chamber is removed from the drum or carrier and treated
with a suitable organic solvent to dissolve the release
coating from the metal in a stripping process that leaves the
metal flakes essentially release coat free. The solvent and
dissolved release material are then removed by centrifuging to
20 produce a cake of concentrated flakes which can be air milled
and let down in a preferred vehicle and further sized and
homogenized for final use in inks, paints or coatings. In one
embodiment the finished flakes comprise single-layer thin
metal or metal alloy flakes or flakes of inorganic materials,
25 and in another embodiment flakes are coated on both sides with
protective polymeric coatings that were applied from suitable
vacuum deposition sources or the like contained in the vapor
deposition chamber.

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